

WHAT IS CLAIMED IS:

1. A method of making a mounting patch for mounting an electronic assembly to the inner liner of a pneumatic tire, the method comprising the steps of:
providing a power source;
embedding the power source into a quantity of uncured rubber; and
5 curing the uncured rubber by applying sufficient heat and pressure to the uncured rubber such that the power source is secured in the rubber.
2. The method of claim 1, wherein said step of providing comprises providing at least one battery as the power source.
3. The method of claim 1, wherein said step of providing comprises providing a pair of batteries as the power source.
4. The method of claim 1, further comprising the step of:
applying an adhesive layer on selected portions of the power source prior to the step of embedding.
5. The method of claim 1, further comprising the step of:
applying a non-conductive adhesive layer on selected portions of the power source prior to the step of embedding.
6. The method of claim 1, further comprising the steps of:
providing an antenna element; and
embedding the antenna element into the quantity of uncured rubber.

7. The method of claim 6, further comprising the step of:
applying an adhesive layer to selected portions of the antenna element prior to the step of embedding the antenna into the quantity of uncured rubber.
8. The method of claim 6, further comprising the step of:
applying a non-conductive adhesive layer to selected portions of the antenna element prior to the step of embedding the antenna element into the quantity of uncured rubber.
9. The method of claim 6, further comprising the step of shaping the antenna element with undulations prior to embedding into the quantity of uncured rubber whereby the undulations allow longitudinal stretching of the antenna element.
10. The method of claim 9, further comprising the step of:
applying a non-conductive adhesive layer to selected portions of the antenna element prior to the step of embedding the antenna element into the quantity of uncured rubber.
11. The method of claim 1, further comprising the steps of:
providing a conductive element; and
embedding the conductive element into the quantity of uncured rubber.
12. The method of claim 11, further comprising the step of:
applying a non-conductive adhesive layer to selected portions of the conductive element prior to the step of embedding the conductive element into the quantity of uncured rubber.

13. The method of claim 11, further comprising the step of selecting the conductive element to be provided from the group consisting of springs, fatigue-resistant metals, and elastomers.

14. A method of providing a pneumatic tire with a mounting patch for mounting a monitoring device for monitoring conditions of the pneumatic tire comprising the steps of:

providing a pneumatic tire;

5. providing a power source;

embedding the power source into a quantity of uncured rubber;

curing the uncured rubber by applying sufficient heat and pressure to the uncured rubber such that the power source is secured in the rubber; and

securing the cured rubber to the pneumatic tire.

15. The method of claim 14, wherein said step of providing a power source comprises providing at least one battery.

16. The method of claim 14, wherein said step of providing a power source comprises providing a pair of batteries.

17. The method of claim 14, further comprising the step of:

applying an adhesive layer to selected portions of the power source prior to the step of embedding.

18. The method of claim 14, further comprising the step of:

applying a non-conductive adhesive layer to selected portions of the power source prior to the step of embedding.

19. The method of claim 14, further comprising the steps of:
providing an antenna element; and
embedding the antenna element into the quantity of uncured rubber.
20. The method of claim 19, further comprising the step of:
applying an adhesive layer to selected portions of the antenna element prior to
the step of embedding the antenna into the quantity of uncured rubber.
21. The method of claim 19, further comprising the step of:
applying a non-conductive adhesive layer to selected portions of the antenna
element prior to the step of embedding the antenna element into the quantity of
uncured rubber.
22. The method of claim 19, further comprising the step of shaping the antenna
element with undulations prior to embedding into the quantity of uncured rubber
whereby the undulations allow longitudinal stretching of the antenna element.
23. The method of claim 22, further comprising the step of:
applying a non-conductive adhesive layer to selected portions of the antenna
element prior to the step of embedding the antenna element into the quantity of
uncured rubber.
24. The method of claim 14, further comprising the steps of:
providing a conductive element; and
embedding the conductive element into the quantity of uncured rubber.

25. The method of claim 24, further comprising the step of:

applying a non-conductive adhesive layer to selected portions of the conductive element prior to the step of embedding the conductive element into the quantity of uncured rubber.

26. The method of claim 24, further comprising the step of selecting the conductive element to be provided from the group consisting of springs, fatigue-resistant metals, and elastomers.